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Research Article

Fertility among descendants of immigrants in Belgium: The role of the partner

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Contents

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Research Article

Fertility among descendants of immigrants in Belgium: The role of the partner

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Abstract

BACKGROUND
Research on the fertility behavior of descendants of immigrants has focused on female characteristics and has largely neglected those of the male partner. One key aspect is whether the partner is of same (endogamous) or of different (exogamous) ethnic origin. Moreover, the male partner may be born in the same country as the female partner, or he may have migrated to that country later in the life course. Consequently, both his ethnic origin and migration history may affect the fertility behavior of second-generation women.

OBJECTIVE
This study analyzes to what extent second and higher order births of second-generation women of Southern European, Turkish, or Moroccan origin in Belgium differ by the ethnic origin and migration history of the male partner.

METHOD
We apply event history methods using the 2001 Belgian Census, linked with the 2006 Belgian National Population Register.

RESULTS
Women of Turkish and Moroccan origin in an endogamous union experience higher second and subsequent birth rates than their counterparts in an exogamous union. However, no variation is found within the endogamous unions: Whether or not the endogamous partner has been born in the country of origin does not seem to affect

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second and higher order birth rates. For women of Southern European origin, second and higher order birth rates do not differ by origin and generation of their partner.

CONTRIBUTION

This study extends the literature on the fertility behavior of the descendants of immigrants by demonstrating the importance of male partner characteristics in explaining the transition to a second or a higher order birth.

1. Introduction

The composition of many European populations has changed in the last decades due to the arrival of new migrants and to the expansion of the number of children of immigrants, the so-called second generation (Castles, De Haas, and Miller 2013; Lanzieri 2008). As the share of the second generation in the total population has increased, and as many of them have recently attained the age of family formation (de Valk and Milewski 2011; Kulu and González-Ferrer 2014), their childbearing behavior is becoming an important factor in shaping the demographic composition of European populations. The existing studies that have analyzed the fertility behavior of the second generation emphasize that the social environment in which they grew up is of major importance for understanding their fertility behavior (Krapf and Wolf 2015; Kulu et al. 2017; Kulu and González-Ferrer 2014; Milewski 2010b; Sobotka 2008).

This study adds a different perspective by looking at the role played in higher order births by the origin of the male partner. The inclusion of the male partner is expected to be of interest for understanding the fertility levels of second-generation women, as the partner may be of the same or of a different ethnic origin. He might have been raised within another institutional context and within a social environment where the interpretation of gender roles and corresponding expectations are different. Consequently, fertility patterns of second-generation women might vary depending on who they are partnered with.

Therefore, this study analyses the fertility behavior of second-generation women who are either in an endogamous union (with a partner of same ethnic origin) or an exogamous union (with a partner of native origin). The endogamous unions are further subdivided into three categories, according to the generation of the partner. The partners who are born and raised in the country of origin and migrated to Belgium during adulthood (i.e., first-generation partners) are distinguished from the partners who are also born in the country of origin but migrated to Belgium before they reached adulthood (i.e., 1.5-generation partners). Both types of partner thus differ with regard to the number of years they have been exposed to only one societal context while growing

up. Finally, the endogamous partner may also have been born in Belgium to foreign-born parents (i.e., a second-generation partner). Consequently, the family norms of these partners might have been shaped by both the parental culture and the dominant patterns of the native Belgian population.

We focus on second and higher order births because having at least one child is generally considered as the standard norm (Testa 2012). The difference between having a standard family and moving on to a larger family is made particularly by parity progression beyond the second child, so that is where the influence of the partner with respect to family size should particularly manifest itself. Moreover, earlier studies have highlighted that among migrants, migration, marriage, and first childbirth are interrelated (Andersson 2004; Mulder and Wagner 1993). Individuals who migrate for the purpose of marriage often experience a higher first-birth rate immediately after they have moved (e.g., Andersson 2004), so results for first births could largely be the result of this relationship.

This study uses full population data from the 2001 Belgian Census linked with 2006 National Population Register data to test whether the origin and generation of the female's partner is related to second or higher order births. We look at descendants from both high-fertility countries (Turkey and Morocco) and low-fertility countries (Italy and Spain). In Belgium these four groups are numerically important: They are the children of the four major origin groups recruited by the Belgian government to fill labor shortages after the Second World War (Van Mol and de Valk 2016). Moreover, the fact that their parents were selected on their low socioeconomic characteristics to perform jobs mainly in the industrial sector (Heath, Rothon, and Kilpi 2008) implies that the comparison between the different origin groups is justified, as they share a similar parental background regarding socioeconomic status. Yet, despite these similarities, the institutional contexts and the dominant social norms in the countries of origin of the four groups differ. We expect that this might affect the socialization, and thus the fertility behavior, of both the woman and her partner.

2. Theoretical perspective and earlier studies

2.1 The fertility behavior of descendants of immigrants

Most research on the fertility behavior of migrant populations focuses on first-generation immigrants. Despite the growing literature, descendants of immigrants are still less studied. Yet the situation of the descendants of immigrants is different from that of their parents, as they either migrated with their parents as children and thus before they reached family formation ages (1.5 generation), or they were born in the

destination country and thus did not experience a migration at all (second generation). So, children of immigrants are born and/or raised in the destination country, but within a family of migrant origin that connects them to the parental culture (Kulu et al. 2017; Kulu and González-Ferrer 2014; Milewski 2010a).

In the fertility literature the socialization hypothesis stresses the importance of the fertility norms, values, and behaviors dominant during an individual's childhood and adolescence to their own reproductive life. It is assumed that the fertility behavior of an individual reflects the fertility preferences and behavior they experienced while growing up and that these preferences will remain relatively stable over the life course (Beine, Docquier, and Schiff 2008; Kulu and González-Ferrer 2014).

Applied to the descendants of immigrants, this means that if they are mainly raised under the influence of the majority population and socialized into their norms, values, and practices, the fertility preferences and behavior of the descendants of immigrants will resemble those of the native population more closely than those of their parents. By contrast, if descendants of immigrants are mainly influenced by the preferences of their immigrant parents and thus socialized according to their parental family norms, values, and practices, this will be reflected in their own fertility ideals. If both the majority population and their minority culture are important in transmitting norms and values, the fertility behavior of the children of immigrants will fall between the levels of the parental and the majority group (Kulu and González-Ferrer 2014), with some reflecting more the majority population and others the parental origin population. Accordingly, the resemblance between the fertility of children of immigrants and the dominant fertility levels of the host society has been seen as an indicator of cultural integration (Garssen and Nicolaas 2008; Scott and Stanfors 2011).

European studies have shown that, overall, the fertility levels of the children of immigrants converge to those of native populations. Only the children of non-European-born parents still experience different childbearing patterns and levels (Sobotka 2008). Scott and Stanfors (2011) analyze the transition to a first birth for different second-generation origin groups in Sweden and find that children whose parents migrated from other European countries have a fairly similar likelihood of becoming a mother as native Swedish women. By contrast, the descendants of immigrants from high fertility countries have a higher likelihood of becoming a mother. However, a more recent Swedish study by Andersson, Persson, and Obućina (2017) finds that most groups of descendants of immigrants have lower first and second birth rates than those with a full Swedish background. In the Netherlands, Garssen and Nicolaas (2008) find that second-generation women of Turkish and Moroccan origin have a lower fertility level than their parents, but still a somewhat higher level than the native Dutch population. For the United Kingdom, several studies show lower fertility rates among the second generation than the parental generation. Only women of

Pakistani and Bangladeshi descent still show higher fertility levels than native British women (Coleman and Dubuc 2010; Kulu et al. 2017; Kulu and Hannemann 2016). According to Kulu and Hannemann (2016), the higher second and particularly third and even fourth birth rates account for these elevated levels. The same conclusions have been drawn for Germany and Belgium. Milewski (2010b) finds in Germany that second-generation women of Southern European origin have similar patterns to those of the native German population. However, descendants of Turkish origin have higher first and third birth risks (see also Krapf and Wolf 2015). The fertility levels of the children of Turkish and Moroccan origin in Belgium are found to be lower than their parents' but different from those of the native population. Especially third birth risks are higher for women of Turkish origin. The childbearing behavior of Southern European descendants differs little from that of the native Belgian population (Kulu et al. 2017; Schoenmaeckers, Lodewijckx, and Gadeyne 1999).

Thus, overall, studies find that children of immigrants have lower fertility levels than their parents, but that some groups, in particular those of non-European origin, still exhibit higher levels than native populations. In an attempt to explain the differences in fertility, most studies control for the socioeconomic characteristics of the second generation. Nevertheless, neither education nor employment can explain the higher fertility levels of the non-European origin groups, which leads to the conclusion that the fertility differences are in all likelihood at least partially the result of cultural factors. Religion (Philipov and Berghammer 2007), coming from a large family (Penn and Lambert 2002), and the preference for having at least one son (Hampshire, Blell, and Simpson 2012; Kagitcibasi 1982) are some factors that have been suggested to explain these differences and which thus emphasize the importance of socialization in explaining the childbearing behavior of the second generation (e.g., Kulu et al. 2017).

Drawing on these earlier studies, we expect to find differences between women of Southern European descent and women of Turkish or Moroccan origin compared to native Belgian women. Net of their socioeconomic characteristics, we expect second-generation women of Southern European origin to have second and higher order birth rates similar to those of native Belgian women (Hypothesis 1). By contrast, second-generation women of either Turkish or Moroccan descent are expected to exhibit higher second and subsequent birth rates than women of native Belgian origin (Hypothesis 2).

2.2 The role of the partner

Previous fertility studies have failed to pay attention to the characteristics of the partners of second-generation women. Following Mills et al. (2008), we argue that it is important to include the partner's perspective because fertility decisions (both timing

and quantum) are typically made by the couple. Moreover, a growing body of research has emphasized the importance of family culture (patriarchal versus egalitarian) and the roles attributed to men and women in understanding fertility behavior (Esping-Andersen and Billari 2015; Folbre 1983; Goldscheider, Bernhardt, and Lappegård 2015; Mason 2001; McDonald 2000a, 2000b, 2006; Oppenheimer 1994). We therefore expect that the male partner's family culture is also relevant to the fertility of second-generation women. As the male partner might have been born and/or raised in a different societal context with different gender roles, the social environment that was dominant when he was growing up is also expected to be relevant to the couple's fertility choices. Consequently, one could expect that the longer the male partner has been exposed to the institutional and social norms and values of his country of origin, the more the fertility levels of the couple will resemble the fertility preferences of that country.

In this sense, we expect differences between the Southern European and the Turkish or Moroccan unions with regard to fertility behavior. While it has been argued that the very low fertility levels in Italy and Spain are partially the outcome of the difficulties women experience in combining a job and a family (Chesnais 1996; Esping-Andersen and Billari 2015; Goldscheider et al. 2015; McDonald 2006; Perez and Livi-Bacci 1992), the higher fertility levels in many North African countries and in Turkey might be related to the enduring influence of the patriarchal ideal in society (Ahmed and Bould 2004; Alexander and Welzel 2011; Fargues 2005; Pels 2000).

For women of Southern European origin we therefore expect the lowest second and higher-order birth rates when the partner is a first-generation migrant and the highest when he is a native Belgian man (Hypothesis 3a). However, the influence of the partner might be different if it is not the cultural context that drives the very low fertility levels in Italy and Spain, but rather the institutional barriers impeding women to combine a family while remaining professionally active (Billari 2008; Perez and Livi-Bacci 1992). Given Belgian policies to ease the work–family balance (Klüsener, Neels, and Kreyenfeld 2013), second-generation women of Southern European origin could experience similar second and higher order birth rates independent of the origin and generation of their male partner, as the Italian or Spanish partner no longer experience these institutional barriers once he arrives in Belgium (Hypothesis 3b).

The opposite is expected for second-generation women of Turkish or Moroccan origin. Those who are in a union with a partner who spent his entire childhood and adolescence in Turkey or Morocco are expected to experience the highest second and subsequent birth rates, as his ideals might be more influenced by the higher fertility norms in their country of origin than men who were born and/or raised in Belgium (Hypothesis 4a*)*. Nevertheless, there is literature suggesting that the choice of a first-generation endogamous partner does not represent a preference for traditional gender

and fertility norms. Instead, it has been argued that second-generation women of Turkish or Moroccan origin prefer a partner who was born and raised in either Turkey or Morocco because they perceive their male counterparts in Belgium as too traditional and conservative (Lievens 1999; Timmerman, Lodewyckx, and Wets 2009). Moreover, the choice of a first-generation partner gives them the opportunity to create their own household: In Turkish and Moroccan cultures it is customary for a woman to become a full member of her husband's family after marriage, but forming a union with a male partner whose family is located in Turkey or Morocco gives her the opportunity to limit meddling from her in-laws (Lievens 1999; Timmerman, Lodewyckx, and Wets 2009; Wolf 2016). Consequently, the choice of a first-generation partner could be driven by emancipatory reasons instead of conformation to traditional patterns. Based on this reasoning, the second and higher order birth rates of the unions with a first-generation Turkish or Moroccan partner are expected to be similar to when the endogamous partner is at least partially raised in Belgium (Hypothesis 4b). This hypothesis clearly contradicts hypothesis 4a.

2.3 The Belgian context

In line with other Western European countries, the Belgian government addressed labor shortages after the Second World War by recruiting male labor migrants (Castles 1986). Initially, most of these men came from Southern European countries. However, they were soon joined by Turkish and Moroccan men (Castles 1986; Reniers 1999; Van Mol and de Valk 2016). These labor migrants were expected to stay in Belgium temporarily, and to return to their country of origin once the shortages were resolved. However, the majority stayed permanently, and although the Belgian government tried to impede new immigration due to the decreased need for workers after the oil crisis in 1973–1974, they were joined by their relatives (Castles 1986; Reniers 1999; Van Mol and de Valk 2016).

In an attempt to restrain further immigration, during the 1980s and 1990s the possibility of entering the country became different for Europeans and non-Europeans (Castles 1986; Lievens 2000; Van Mol and de Valk 2016). With the development of the European Union (EU) and then the adoption of the Maastricht Treaty in 1992, EU citizens were entitled to move freely in Europe. By contrast, non-European migrants were subject to more rigorous legislation and their possibilities of entering the EU became much more limited (European Parliament 2015; Heath, Rothon, and Kilpi 2008; Van Mol and de Valk 2016). For many non-Europeans, marriage migration was one of the few remaining possibilities, which could explain why many EU residents of Turkish or Moroccan origin have found their partners in their countries of origin (Lesthaeghe

and Surkyn 1988; Lievens 1999, 2000; Lucassen and Laarman 2009). However, as mentioned before, some authors argue that the popularity of choosing a marriage migrant is not merely the result of the legal constraints both origin groups face in entering Belgium but could also stem from the specific partner preferences of both second-generation men and women of Turkish or Moroccan origin. While it is argued that second-generation men perceive the women born and raised in the destination country as too modern and therefore prefer a partner from their country of origin, second-generation women prefer an immigrant partner because they find their male counterparts too traditional (Lievens 1999; Timmerman, Lodewyckx, and Wets 2009; Wolf 2016).

In terms of fertility behavior, the total fertility rate (TFR) of women of Southern European, Turkish, and Moroccan origin in Belgium declined from the 1960s onwards. While the TFR of women of Italian and Spanish origin dropped from 3 children per woman to lower than 1.5 by the end of the 1990s, for the women of Turkish origin the TFR declined from 6 to 2.3 children and for the women of Moroccan origin from 6 to 3 children. Although all four origin groups experienced a fertility transition, the women differ with regard to their fertility timing. Whereas women of Southern European descent and women of Moroccan origin tend to postpone their first births (as do women of Belgian origin), women of Turkish origin start childbirth at a relative young age (mostly between the ages 20–24) (Gadeyne, Neels, and De Wachter 2009).

The fertility decline of the four origin groups in Belgium could be interpreted as a convergence towards the fertility levels of the native Belgian population (TRF of 1.6 by the end of the 1990s). Nevertheless, fertility declines were also observed in the respective countries of origin during the second half of the 20th century (World Bank Group 2016). Moreover, a study analyzing the contribution of women of foreign origin to the recent fertility recovery in Belgium shows that fertility would also have recuperated without women of foreign origin, as this revival is merely an effect of fertility recuperation among the native Belgian population (Van Landschoot, Van Bavel, and de Valk 2014).

3. Data, method, and measures

3.1 Data and method

Our analyses were conducted on 2001 Belgian Census data, linked with 2006 National Population Register data by Statistics Belgium. The Belgian Census covers all individuals legally residing in Belgium and provides information on household composition. This means that heterosexual married and non-married cohabiting

individuals can be distinguished from singles. Several sociodemographic characteristics are included in the census, including his and her nationality at birth, current nationality, country of birth, age, educational level, and employment. However, we lack information on union duration. Moreover, only female fertility histories can be derived at the time of the census since only women aged 14 or older are asked about the number and the birth year of children already born.[4]

The linkage of the Belgian Census to the National Population Register data enables us to follow couples longitudinally from October 1, 2001 until January 1, 2006 and provides the birth dates of all children born in that period. We are therefore able to follow unions with one child at the time of the census until they experience a second birth or until right censoring. Couples with at least two children at the time of the census are followed to the moment of a subsequent birth or to right censoring. So, two different non-random analytic groups are created: one for the transition to a second birth for all women in a union and with one child at the time of the census (subgroup A: N=169,711 women) and one for women in a union with a minimum of two children at the time of the census who are at risk of a subsequent birth (subgroup B: N=332,316 women).

In order to address right hand censoring and truncation we use discrete-time event history models (Mills 2011). For the transition to a second birth the process time denotes the number of years since the first birth. For the transition to a higher order birth the duration time is the number of years since the previous birth. Thus, we start to follow women in a union from the time of first or higher order birth, but they only become at risk of having another child on October 1, 2001. This approach has two important consequences. First, the longer the interval between the date of birth of a child and the date of the census, when the mother would enter our risk set for having another child, the higher the likelihood of left censoring. Left censoring happens when a next child is born before the census date, so that the mother never enters our risk set for the earlier parity transition. Second, women who dissolved their relationship prior to the census are also excluded from our risk set. Our data are thus left-truncated. To minimize this left-truncation, both subgroups are restricted to women whose first or youngest child was born in 1997 at the latest, i.e., a maximum of 5 years before the census. Consequently, subgroup A is reduced to 93,408 women (Table 1) and subgroup B to 149,463 women (Table 2).

As a robustness check, we also limited the subgroups to women whose youngest child was born in 2000 or later. A comparison of results revealed similar findings for the two different designs. We therefore opted for the models including women who had their youngest child born a maximum of five years prior to the census, for the following two reasons. First, since we can only follow women for five years after the census,

[4] Therefore, we cannot be sure that the male partner in 2001 is also the legal father of these children.

women with relatively short birth intervals would be overrepresented in the most restrictive design. Second, the results could also be influenced by a period effect, because Belgium, like most European countries, experienced a fertility revival at the beginning of the 21st century (Goldstein, Sobotka, and Jasilioniene 2009). This revival was chiefly the effect of fertility recuperation among native Belgian women (Van Landschoot, Van Bavel, and de Valk 2014). Consequently, as we compare the fertility behavior of the different origin groups relative to native Belgian women (Hypotheses 1 and 2), conclusions based on the more restrictive design could be biased, given the temporal fertility recuperation specifically among native Belgian women.[5] A comparison of the results for the different designs is provided in Table A–1 in the Appendix.

Individuals are at risk until they experience a second or a subsequent birth, or until right censoring. The individuals are censored when they either separate from their partner before the second or higher order birth, or when they have not (yet) experienced the transition to a second or a higher order birth by the end of our observation time (January 1, 2006).

3.2 Measures

We used the origin and generation of the male partner as a proxy for where and how long he has been exposed to one societal context, as direct measures of norms, values, and preferences are not available in our data. For the purpose of our study we only included second-generation women who were either in a union with a partner of same ethnic origin or with a native Belgian man.

To define the origin of the male and the female partner we used a stepwise approach. We started from the nationality at birth of the father (or mother, if the nationality of the father was unknown or Belgian) for those who were living in the parental household at the time of the 2001 Belgian Census. For those who had left the parental home before 2001 we took the nationality at birth of the father (or mother) as specified in the 1991 Belgian Census, if the individual was a member of their household at that time. In both cases we used the father's (or mother's) nationality at birth as a proxy for his/her origin. If, however, the nationality of both parents was unknown, we looked at his/her nationality at birth. Again, if his or her nationality at birth was

[5] This explains why the exponentiated coefficients of the different origin groups decreased relative to the native Belgian population in our sensitivity analyses. Supplementary controls do indeed show a changing fertility behavior among the native Belgian population.

unknown, we took the nationality at the time of the 2001 census as a proxy for his/her origin.[6]

Next, we distinguished individuals of Italian, Spanish, Turkish, and Moroccan origin by place of birth and age at immigration (if born outside Belgium) to determine the generation. We used adulthood as a cut-off point to differentiate first- from 1.5-generation partners, as we wanted to distinguish between those who decided to migrate themselves and those who migrated as children and thus did not take the decision to migrate. Consequently, first-generation immigrants are those who were born outside Belgium and migrated to Belgium at age 19 or later. Individuals born outside Belgium but who migrated to Belgium before the age of 19 are considered to be of the 1.5 generation. Individuals born in Belgium or who migrated to Belgium before age 1 are classified as second generation. Due to the small numbers in the Spanish-origin group, these women were combined into the group 'Southern European origin' along with the women of Italian origin.[7] In total, 4,543 Southern European, 1,187 Turkish, and 1,737 Moroccan second-generation women were observed who were at risk of having a second child (subgroup A, Table 1). The analytical sample of women moving to a higher order birth consisted of, respectively, 4,993, 1,217, and 2,134 second-generation women (subgroup B, Table 2).

The women differed from each other with regard to their partners. Second-generation women of Southern European origin were most often in a union with a native Belgian man, followed by unions where the partner was also of the second generation. By contrast, second-generation women of Turkish and Moroccan origin were most often in an endogamous union, and particularly in a union where the partner was a first-generation man. Approximately 70% of the second-generation women of Turkish origin and 65% of the women of Moroccan origin had a first-generation endogamous partner, suggesting the ongoing importance of marriage migration for both origin groups (Tables 1 and 2).

Our target population consists of women born between 1960 and 1981. We distinguished the 1960–1970 birth cohort from the 1971–1981 birth cohort (time-constant). The woman's age at first birth was grouped into four categories (20 years or younger, 21–25 years, 26–30 years, and 31 years or older) (time-constant). Regarding type of union, we distinguished married unions from non-married cohabiting unions (time-constant) (Tables 1 and 2). We also included the number of children already born at the time of the census for the analyses of higher order births (time-constant) (Table 2).

[6] This approach implies that everyone who had Belgian nationality at birth but who had Italian, Spanish, Turkish, or Moroccan parents and left the parental home prior to the 1991 Census is considered to be of native Belgian origin.

[7] We also modeled the analyses of women of Italian and Spanish origin separately, but our findings were in line with the presented pooled analyses for the women of Southern European origin.

Table 1: Descriptive statistics of subgroup A: Transition to a second birth

	Native Belgian N=85,941		Southern European N=4,543		Turkish N=1,187		Moroccan N=1,737	
	N	%	N	%	N	%	N	%
Origin and generation of partner								
Native Belgian	85,941	100.0	2,657	58.5	32	2.7	153	8.8
1st generation			170	3.7	854	71.9	1,143	65.8
1.5 generation			208	4.6	79	6.7	137	7.9
2nd generation			1,508	33.2	222	18.7	304	17.5
Birth cohort woman								
1960–1970	32,547	37.9	1,459	32.1	48	4.0	190	10.9
1971–1981	53,394	62.1	3,084	67.9	1,139	96.0	1,547	89.1
Age at first birth								
≤ 20	2,005	2.3	116	2.6	224	18.9	178	10.2
21–25	19,849	23.1	1,415	31.1	786	66.2	921	53.0
26–30	44,773	52.1	2,190	48.2	159	13.4	563	32.4
≥ 31	19,314	22.5	822	18.1	18	1.5	75	4.3
Second birth								
No	38,062	44.3	2,197	48.4	340	28.6	374	21.5
Yes	47,879	55.7	2,346	51.6	847	71.4	1,363	78.5
Separation								
No	74,751	87.0	3,785	83.3	1,011	85.2	1,522	87.6
Yes	11,190	13.0	758	16.7	176	14.8	215	12.4
Type of union								
Married	63,457	73.8	3,435	75.6	1,171	98.7	1,645	94.7
Cohabiting	22,484	26.2	1,108	24.4	16	1.3	92	5.3
Education woman								
Low	9,302	10.8	872	19.2	390	32.9	434	25.0
Medium	36,040	41.9	2,125	46.8	711	59.9	1,003	57.7
High Nonacademic	28,114	32.7	1,208	26.6	70	5.9	248	14.3
High Academic	12,485	14.5	338	7.4	16	1.3	52	3.0
Employment woman								
Full-time	53,551	62.3	2,083	45.9	301	25.4	526	30.3
Part-time	22,270	25.9	1,244	27.4	151	12.7	258	14.9
Unemployed	10,120	11.8	1,216	26.8	735	61.9	953	54.9
Education partner								
Low	16,715	19.4	1,448	31.9	595	50.1	773	44.5
Medium	38,585	44.9	2,033	44.8	501	42.2	627	36.1
High Nonacademic	15,856	18.4	666	14.7	52	4.4	156	9.0
High Academic	14,785	17.2	396	8.7	39	3.3	181	10.4
Employment partner								
Full-time	81,426	94.7	4,095	90.1	791	66.6	1,226	70.6
Part-time	1,826	2.1	145	3.2	73	6.1	145	8.3
Unemployed	2,689	3.1	303	6.7	323	27.2	366	21.1

Source: Belgian Census (2001) and National Population Register (2006)
Note: Absolute and relative numbers are presented here.

Table 2: Descriptive statistics of subgroup B: Transition to a higher order birth

	Native Belgian N=141,119		Southern European N=4,993		Turkish N=1,217		Moroccan N=2,134	
	N	%	N	%	N	%	N	%
Origin and generation of partner								
Native Belgian	141,119	100.0	2,738	54.8	23	1.9	123	5.8
1st generation			300	6.0	912	74.9	1,454	68.1
1.5 generation			357	7.2	138	11.3	267	12.5
2nd generation			1,598	32.0	144	11.8	290	13.6
Birth cohort, woman								
1960–1970	102,116	72.4	3,310	66.3	265	21.8	784	36.7
1971–1981	39,003	27.6	1,683	33.7	952	78.2	1,350	63.3
Age at first birth								
≤ 20	9,837	7.0	463	9.3	509	41.8	537	25.2
21–25	49,804	35.3	2,195	44.0	618	50.8	1,152	54.0
26–30	67,458	47.8	1,964	39.3	87	7.1	411	19.3
≥ 31	14,020	9.9	371	7.4	3	0.2	34	1.6
Number of children								
2	93,040	65.9	3,686	73.8	827	68.0	1,223	57.3
3	35,518	25.2	1,031	20.6	297	24.4	635	29.8
≥ 4	12,561	8.9	276	5.5	93	7.6	276	12.9
Higher order birth								
No	117,332	83.1	4,204	84.2	818	67.2	969	45.4
Yes	23,787	16.9	789	15.8	399	32.8	1,165	54.6
Separation								
No	125,838	89.2	4,335	86.8	1,061	87.2	1,930	90.4
Yes	15,281	10.8	658	13.2	156	12.8	204	9.6
Type of union								
Married	124,323	88.1	4,392	88.0	1,207	99.2	2,073	97.1
Cohabiting	16,796	11.9	601	12.0	10	0.8	61	2.9
Education woman								
Low	21,795	15.4	1,510	30.2	569	46.8	886	41.5
Medium	51,056	36.2	2,152	43.1	594	48.8	992	46.5
High Nonacademic	46,564	33.0	1,022	20.5	48	3.9	221	10.4
High Academic	21,704	15.4	309	6.2	6	0.5	35	1.6
Employment woman								
Full-time	60,438	42.8	1,653	33.1	228	18.7	408	19.1
Part-time	51,437	36.4	1,386	27.8	174	14.3	278	13.0
Unemployed	29,244	20.7	1,954	39.1	815	67.0	1,448	67.9
Education partner								
Low	31,169	22.1	1,934	38.7	704	57.8	1,076	50.4
Medium	53,648	38.0	1,933	38.7	424	34.8	731	34.3
High Nonacademic	26,392	18.7	653	13.1	47	3.9	165	7.7
High Academic	29,910	21.2	473	9.5	42	3.5	162	7.6
Employment partner								
Full-time	132,938	94.2	4,414	88.4	874	71.8	1,524	71.4
Part-time	3,170	2.2	154	3.1	68	5.6	141	6.6
Unemployed	5,011	3.6	425	8.5	275	22.6	469	22.0

Source: Belgian Census (2001) and National Population Register (2006)
Note: Absolute and relative numbers are presented here.

We controlled for his and her educational level and employment status (both time-constant). We also included a variable accounting for the relative educational differences between both spouses. However, as the inclusion of this variable did not change our main findings the results are not shown here. For educational attainment, we distinguished four categories: low, medium, high nonacademic, and high academic education. For employment status the category full-time was separated from part-time and unemployed at the time of the census[8] (Tables 1 and 2).

We performed the multivariate analyses in two steps. First, to test Hypotheses 1 and 2 we analyzed the transitions to a second or a higher order birth for second-generation women of Southern European, Turkish, and Moroccan origin compared with the native Belgian women in the pooled dataset. To test Hypotheses 3 and 4, in the second step we studied the importance of the characteristics of the male partner and analyzed the rates of having a second or a higher order birth for the three second-generation origin groups separately. The confidence intervals are included in the tables and figures to index the precision of our estimates. However, we did not test the statistical significance since we used complete population data rather than random samples.

4. Results

4.1 Childbearing patterns of second-generation women

Table 3 presents the estimates from the discrete-time hazard models of the transition to a second or a higher order birth for native Belgian and second-generation women of Southern European, Turkish, and Moroccan origin with one or at least two children already born at the time of the census, respectively. Models 1a and 2a examine the impact of the woman's origin, her birth cohort, her age at first birth, and the type of union. In Models 1b and 2b the female's socioeconomic characteristics (educational level and employment) are added. The number of children already born at the time of the census is also included in the models that analyze the transition to a higher order birth (Models 2a and 2b). In all models the process time is the number of years since the previous birth.

[8] The number of individuals who were still at school was low (N=38 women and N=23 partners for subgroup A and N=11 women and N=7 partners for subgroup B), and these individuals were therefore excluded from the analyses.

Table 3: Exponentiated coefficients for predictors of mothers' transition to a second or a higher order birth

	Transition to a second birth		Transition to a higher order birth	
	Model 1a	Model 1b	Model 2a	Model 2b
Years since previous birth TV				
0	0.23 (0.21–0.24)	0.22 (0.21–0.23)	0.70 (0.66–0.75)	0.70 (0.66–0.74)
1	1.00	1.00	1.00	1.00
2	1.32 (1.28–1.36)	1.39 (1.35–1.43)	1.04 (1.00–1.08)	1.05 (1.00–1.09)
3–4	0.70 (0.68–0.72)	0.79 (0.77–0.81)	0.65 (0.63–0.68)	0.66 (0.64–0.69)
5+	0.20 (0.19–0.21)	0.23 (0.22–0.24)	0.26 (0.25–0.28)	0.27 (0.26–0.28)
Origin of woman				
Native Belgian	1.00	1.00	1.00	1.00
Southern European	0.79 (0.75–0.82)	0.85 (0.81–0.90)	0.83 (0.77–0.90)	0.85 (0.78–0.91)
Turkish	1.00 (0.92–1.08)	1.19 (1.10–1.30)	1.27 (1.14–1.42)	1.20 (1.08–1.34)
Moroccan	1.34 (1.25–1.44)	1.58 (1.48–1.69)	3.14 (2.93–3.36)	2.99 (2.79–3.20)
Birth cohort				
1960–1970	1.00	1.00	1.00	1.00
1971–1981	1.23 (1.20–1.28)	1.28 (1.24–1.32)	1.89 (1.83–1.96)	1.91 (1.85–1.97)
Age at first birth				
≤ 20	1.13 (1.06–1.20)	1.31 (1.23–1.40)	1.51 (1.44–1.58)	1.53 (1.46–1.60)
21–25	1.00	1.00	1.00	1.00
26–30	0.97 (0.94–0.99)	0.75 (0.73–0.77)	1.00 (0.97–1.04)	0.84 (0.81–0.87)
≥ 31	0.64 (0.61–0.67)	0.48 (0.46–0.51)	0.74 (0.70–0.79)	0.58 (0.54–0.61)
Type of union				
Married	1.00	1.00	1.00	1.00
Cohabiting	0.69 (0.68–0.71)	0.74 (0.72–0.76)	1.09 (1.05–1.13)	1.11 (1.07–1.15)
Number of children in 2001				
2			1.00	1.00
3			0.72 (0.70–0.75)	0.66 (0.64–0.69)
≥ 4			0.83 (0.79–0.87)	0.72 (0.69–0.76)
Education woman				
Low		1.00		1.00
Medium		1.21 (1.16–1.25)		0.94 (0.90–0.98)
High Nonacademic		2.21 (2.13–2.30)		1.32 (1.26–1.38)
High Academic		3.56 (3.40–3.72)		2.28 (2.17–2.40)
Employment woman				
Full-time		1.00		1.00
Part-time		1.02 (1.00–1.05)		1.04 (1.01–1.08)
Unemployed		1.00 (0.96–1.03)		1.48 (1.42–1.53)
Constant	0.35	0.22	0.06	0.05

Source: Belgian Census (2001) and National Population Register (2006)
Notes: 95% confidence interval between brackets; TV = time-varying.

Model 1a shows a lower second birth rate for second-generation women of Southern European origin than for native Belgian women. Women of Turkish origin have similar second birth rates, while women of Moroccan origin experience the

highest rates. In Model 1b we control for the woman's socioeconomic characteristics. Again, the second birth rates for women of Southern European origin are lower than for native Belgian women. So, contrary to what we expected (Hypothesis 1), women of Southern European origin do not have a second birth rate similar to native Belgian women. Women of Turkish origin show a higher second birth rate than native Belgian women. This is probably due to the educational composition of the Turkish women relative to the native Belgian women. Women of Moroccan origin still have the highest rates. The results of both origin groups are therefore in line with Hypothesis 2.

For the transition to higher order births, Model 2a reveals lower rates for women of Southern European origin than for native Belgian women, whereas the rates of the second-generation women of Turkish and Moroccan origin are higher. Very much in line with the results of Model 2a, the inclusion of educational level and employment status did not change our findings. While second-generation women of Southern European descent are the least likely to have a subsequent child, the highest rates are found for women of Turkish and particularly of Moroccan origin (Model 2b). Again, whereas the findings for the women of Southern European origin contradict Hypothesis 1, the results for the women of Turkish or Moroccan origin correspond with the expectation formulated in Hypothesis 2.

4.2 Within-group differences by partner characteristics

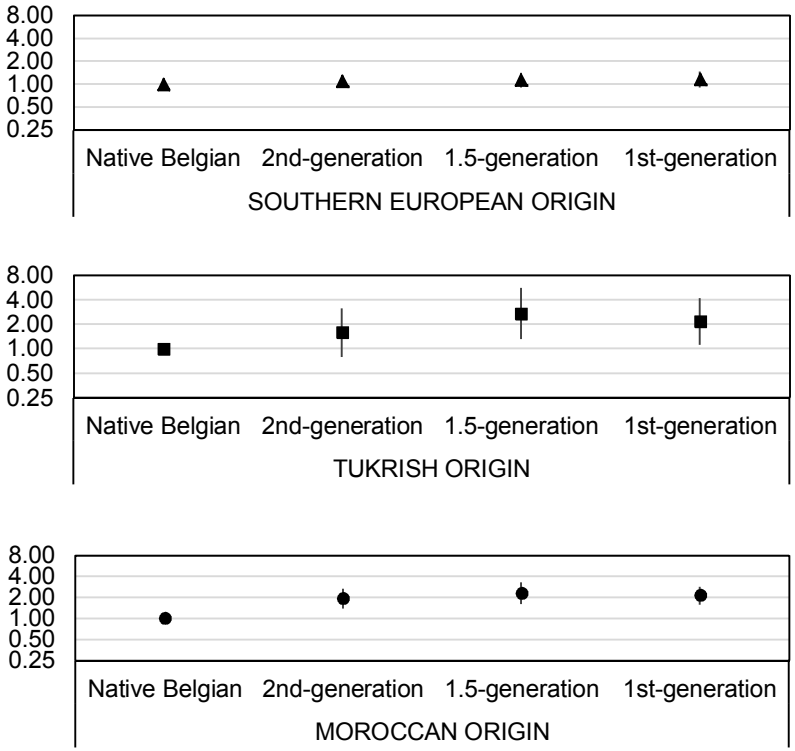
4.2.1 Second births

Figure 1 represents the exponentiated coefficients of having a second birth by the origin and generation of the male partner. The results are controlled for background characteristics of the woman and her partner. Full model results are included in the Appendix, Table A–2.

Our findings clearly show that second birth rates differ according to the second-generation woman's partner. For each of the three origin groups the women in an endogamous union experience higher second birth rates than their counterparts in a union with a native Belgian. Moreover, the rates differ by the generation of the endogamous partner. Second-generation women of Turkish or Moroccan origin whose partner spent at least some years in the country of origin have higher second birth rates than unions in which the partner is also second generation. The lowest rates are found for those in a union with a native Belgian man. However, the observed patterns differ between women of Turkish and Moroccan origin. While second-generation women of Turkish origin in unions with first-generation men have a higher second birth rate than when the partner is second generation (in line with Hypothesis 4a), the findings for the

Moroccan women are overall in line with Hypothesis 4b. Second-generation women of Moroccan origin who are in unions with first-generation endogamous partners show fairly similar second birth rates to when the union is with a second-generation partner.

Figure 1: Exponentiated coefficients for the transition to a second birth by origin and generation of the male partner



Source: Belgian Census (2001) and National Population Register (2006)
Note: Results are controlled for years since first birth (time-varying), birth cohort, age at first birth, type of union, his and her educational level, and his and her employment status.

Surprisingly, the second-birth rates of the women of Southern European origin are also positively associated with the number of years the partner has lived either in Italy or Spain. These findings contradict our expected decrease by generation of the

endogamous partner (Hypothesis 3a). However, the variation between the different type of union is rather small, which suggests that regardless of the origin and generation of the male partner, the birth rates of the Southern European women are similar (in line with Hypothesis 3b).

4.2.2 Higher order births

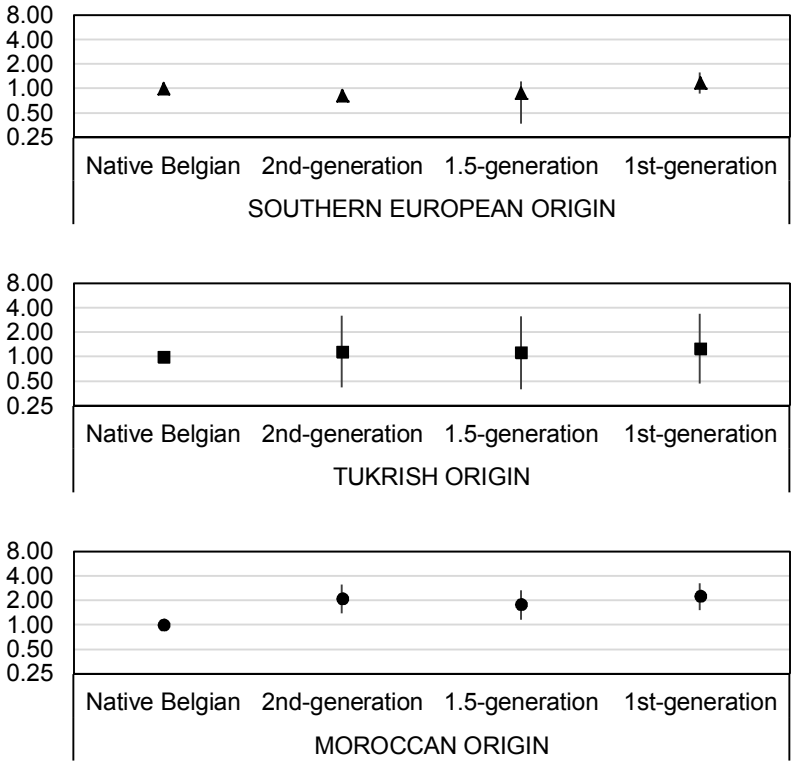
The exponentiated coefficients of the higher order birth analyses by origin and generation of the partner are presented in Figure 2. Full model results are included in the Appendix, Table A–3. Again, the analyses are performed for second-generation women of Southern European, Turkish, and Moroccan origin separately. Women with at least two children already born at the time of the census form the risk set. The number of years since the birth of the youngest child born prior to the census is included as process time. Again, we control for characteristics of the woman and her partner and for the number of children already born at the time of the census.

The higher order birth rates vary by the origin and generation of the partner. As shown in Figure 2, the results are different for women who are in a union with an endogamous partner and those whose partner is of native Belgian origin.

The results for the Turkish and Moroccan women are not fully in line with what we expected in Hypothesis 4a, but endogamous unions, and particularly Moroccan endogamous unions, are indeed more likely to experience the transition to a higher order birth than unions where the partner is of native Belgian origin. Moreover, both Turkish and Moroccan women with first-generation partners are the most likely to experience the transition to a higher order birth, but the differences with the unions where the partner is also of second generation are small. Consequently, our findings are more in line with Hypothesis 4b than 4a.

The findings for Southern European women do not support Hypothesis 3a: Second or higher order birth rates are not lower for women whose partner is born in the country of origin than for those with a native Belgian partner. Instead, their birth rates are similar to the ones found for women with a native Belgian partner, which is in line with Hypothesis 3b.

Figure 2: Exponentiated coefficients for the transition to a higher order birth by origin and generation of the male partner



Source: Belgian Census (2001) and National Population Register (2006)
Note: Results are controlled for years since previous birth (time-varying), birth cohort, age at first birth, number of children already born in 2001, type of union, his and her educational level, and his and her employment status.

5. Conclusions and discussion

In this paper we posited that the characteristics of male partners are relevant to the fertility behavior of second-generation women, although little studied. We investigated to what extent the second and higher order birth rates of Southern European (Italy and Spain), Turkish, and Moroccan second-generation women in Belgium differed according to the origin and generation of the male partner. We focused on second and higher order births because these differentiate more than first births with respect to

family size. Since having two children is generally considered to be the standard norm (Testa 2012), we analyzed the transition to second births separately from higher order births. We used Belgian data from the 2006 National Population Register linked back with the 2001 Census.

First, we analyzed the transition to second and higher order births among second-generation versus native Belgian women. Although earlier European studies have found similarities between women of Southern European origin and native populations, our findings revealed lower second and subsequent birth rates for women of Southern European origin. By contrast, the results for women of Turkish and Moroccan origin were in line with earlier findings: We found higher second and subsequent birth rates for the women of Turkish and Moroccan origin compared to their Belgian peers. These results suggest that the fertility norms, values, and behavior dominant during childhood and adolescence remain important for women's reproductive life course. The low fertility of the women of Southern European origin on the one hand, and the high fertility of the Turkish- and Moroccan-origin women on the other hand might reflect family sizes observed in the parental generation. While the parents of the Southern European descendants migrated from countries characterized by very low fertility levels, the parents of the Turkish and Moroccan women came from higher-fertility countries.

The main focus of this paper was on the role of the background of the partner. In general, we expected that the longer the male partner had been exposed to the fertility norms, values, and behavior of his country of origin, the more the fertility levels of the couple would resemble the fertility preferences at origin. Consequently, the second and higher order birth rates were expected to decrease by the generation of the Southern European partner, while we expected a positive gradient by the generation of the Turkish and Moroccan male partners.

For Southern European origin women our findings ran against our expectations, as we found that the origin and generation of the male partner hardly matters. We can speculate about possible explanations for this finding. First, earlier studies have already highlighted the importance of institutional factors in explaining very low fertility in Southern Europe (Billari 2008; Perez and Livi-Bacci 1992). As the male partner is no longer subjected to the institutional limitations of the home country upon arrival in Belgium, the similar second and higher order births by origin and generation of the male partner could be interpreted in this regard. Second, the lack of fertility variation based on partner characteristics in this group could be due to selectivity. We have studied second and higher order births only, which implies that the women in our analyses were already selected to be mothers. Given that childlessness is more common among Southern European women (González and Jurado-Guerrero 2006; Tanturri and Mencarini 2008), mothers are likely to be a selective group. Male characteristics may

be more decisive in differentiating the transition to parenthood than higher order parity progression, as suggested by a recent study by Trimarchi and Van Bavel (2017). Third and finally, we have to keep in mind that we only observed a small number of unions with either a 1.5- or a first-generation partner, so the lack of association with partner characteristics should be interpreted with caution and may be due to chance.

For the second-generation women of Turkish or Moroccan origin the background of the partner did seem to play a role. Our results revealed that having a partner of the same ethnic origin is positively associated with second and higher order births. However, women with a first-generation partner experienced fairly similar second and higher order birth rates as women with a second-generation partner, and thus not higher, as was expected. This suggests that having a partner who is socialized according to the same ethnic fertility preferences mattered for the couple's fertility behavior, but that the duration of his exposure to the fertility norms, values, and preferences in the country of origin did not have an additional influence. However, this finding could also be interpreted in the light of women's partner preferences. There is literature that suggests that second-generation women of Turkish or Moroccan origin may prefer a first-generation immigrant partner for emancipatory reasons: marrying a same-origin partner living in Belgium implies potential interference from in-laws living locally, which may be avoided by marrying an immigrant (Timmerman, Lodewyckx, and Wets 2009). This may help to explain why unions with an immigrant endogamous partner experienced similar second and higher order birth rates as unions with a second-generation husband. In order to improve our understanding of the association between the process of mate selection on the one hand and fertility behavior on the other hand, further studies could analyze union formation and childbearing simultaneously using multiprocess models (Kulu and Steele 2013; Trimarchi and Van Bavel 2017).

In this study we have analyzed the importance of the partner for the fertility behavior of second-generation women. However, due to certain data and analytical limitations, our findings should be interpreted with some caution.

First, we used origin and generation to indicate the dominant social environment during the woman's and her partner's childhood and adolescence. More explicit information about norms, values, and dominant fertility patterns while growing up is needed to fully understand the underlying motivations and explanations behind why some unions experienced higher fertility levels compared to others depending on the partner's background. Then attributing the observed fertility differences to the effect of norms and values internalized during childhood and youth would be on firmer ground.

Second, earlier studies have shown that fertility choices are joint partner decisions. Our data does not enable us to assess how second-generation women and their partners negotiate these decisions. More detailed couple-level information is needed in order to better understand the considerations and challenges that they face.

Third, due to left-truncation, our results may be biased. Women who had already had their second or higher order birth before the census were removed from the risk set of our corresponding analysis, so those with marked higher birth rates than otherwise similar peers were selected out of our analysis. Although the results of our robustness checks were reassuring, longitudinal data covering full reproductive histories would be a great asset.

Finally, as the second generation only recently arrived at the age of family formation and thus during the period under study are in the midst of their reproductive lives, our findings may reflect the rather young age structure. In the future it will be increasingly possible to start analyzing completed fertility, which will provide a more coherent insight into the importance of the male partner for fertility histories. In the meantime, our study has clearly demonstrated that the background of the male partner does matter for the fertility behavior of second-generation women.

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Appendix

Table A–1 Sensitivity analyses: Exponentiated coefficients for predictors of mothers' transition to a second or a higher order birth[9]

	Transition to a second birth		Transition to a higher order birth	
	Model A1 First child born in 1997 or later (N=93,408)	Model A2 First child born in 2000 or later (N=48,632)	Model A3 Youngest child born in 1997 or later (N=149,463)	Model A4 Youngest child born in 2000 or later (N=61,599)
Years since previous birth TV				
0	0.22 (0.21–0.23)	0.22 (0.21–0.23)	0.70 (0.66–0.74)	0.70 (0.66–0.75)
1	1.00	1.00	1.00	1.00
2	1.39 (1.35–1.43)	1.39 (1.35–1.44)	1.05 (1.00–1.09)	1.02 (0.97–1.07)
3–4	0.79 (0.77–0.81)	0.75 (0.73–0.78)	0.66 (0.64–0.69)	0.57 (0.55–0.60)
5+	0.23 (0.22–0.24)	0.13 (0.11–0.14)	0.27 (0.26–0.28)	0.12 (0.10–0.13)
Origin of woman				
Native Belgian	1.00	1.00	1.00	1.00
Southern European	0.85 (0.81–0.90)	0.70 (0.66–0.75)	0.85 (0.78–0.91)	0.82 (0.74–0.91)
Turkish	1.19 (1.10–1.30)	0.91 (0.81–1.03)	1.20 (1.08–1.34)	0.92 (0.78–1.08)
Moroccan	1.58 (1.48–1.69)	1.35 (1.23–1.48)	2.99 (2.79–3.20)	2.24 (2.03–2.46)
Birth cohort				
1960–1970	1.00	1.00	1.00	1.00
1971–1981	1.28 (1.24–1.32)	1.25 (1.17–1.33)	1.91 (1.85–1.97)	1.87 (1.79–1.95)
Age at first birth				
≤ 20	1.31 (1.23–1.40)	1.19 (1.08–1.32)	1.53 (1.46–1.60)	1.41 (1.32–1.51)
21–25	1.00	1.00	1.00	1.00
26–30	0.75 (0.73–0.77)	0.76 (0.74–0.79)	0.84 (0.81–0.87)	0.88 (0.84–0.92)
≥ 31	0.48 (0.46–0.51)	0.56 (0.52–0.61)	0.58 (0.54–0.61)	0.73 (0.67–0.79)
Type of union				
Married	1.00	1.00	1.00	1.00
Cohabiting	0.74 (0.72–0.76)	0.72 (0.69–0.74)	1.11 (1.07–1.15)	1.06 (1.00–1.11)
Number of children in 2001				
2	—	—	1.00	1.00
3	—	—	0.66 (0.64–0.69)	0.75 (0.71–0.78)
≥ 4	—	—	0.72 (0.69–0.76)	0.85 (0.79–0.92)
Education woman				
Low	1.00	1.00	1.00	1.00
Medium	1.21 (1.16–1.25)	1.19 (1.13–1.26)	0.94 (0.90–0.98)	0.91 (0.86–0.96)
High Nonacademic	2.21 (2.13–2.30)	2.21 (2.09–2.34)	1.32 (1.26–1.38)	1.25 (1.17–1.33)
High Academic	3.56 (3.40–3.72)	3.52 (3.32–3.74)	2.28 (2.17–2.40)	2.12 (1.98–2.27)
Employment woman				
Full-time	1.00	1.00	1.00	1.00
Part-time	1.02 (1.00–1.05)	0.99 (0.96–1.03)	1.04 (1.01–1.08)	1.03 (0.99–1.07)
Unemployed	1.00 (0.96–1.03)	0.98 (0.94–1.02)	1.48 (1.42–1.53)	1.47 (1.40–1.55)
Constant	0.22	0.22	0.05	0.05

Source: Belgian Census (2001) and National Population Register (2006)
Notes: 95% confidence interval between brackets; TV = time-varying.

[9] The sensitivity analyses for the different origin groups and by parity are available upon request.

Table A–2 Exponentiated coefficients for predictors of mothers' transition to a second birth, by origin

	Southern European origin (N=4,543)	Turkish origin (N=1,187)	Moroccan origin (N=1,737)
	Model B1	Model B2	Model B3
Years since first birth TV			
0	0.43 (0.32–0.58)	0.47 (0.29–0.75)	0.40 (0.29–0.57)
1	1.00	1.00	1.00
2	1.85 (1.58–2.16)	1.58 (1.20–2.08)	1.81 (1.48–2.21)
3–4	1.61 (1.39–1.86)	2.13 (1.66–2.73)	2.12 (1.76–2.56)
5+	0.72 (0.60–0.86)	1.76 (1.31–2.37)	1.20 (0.92–1.55)
Origin and generation of partner			
Native Belgian	1.00	1.00	1.00
1st generation	1.16 (0.91–1.48)	2.19 (1.13–4.25)	2.15 (1.60–2.88)
1.5 generation	1.14 (0.91–1.42)	2.72 (1.32–5.63)	2.32 (1.61–3.34)
2nd generation	1.09 (0.98–1.21)	1.59 (0.80–3.15)	1.94 (1.41–2.67)
Birth cohort			
1960–1970	1.00	1.00	1.00
1971–1981	1.13 (0.97–1.32)	1.43 (0.77–2.67)	0.96 (0.72–1.30)
Age at first birth			
≤ 20	1.37 (1.02–1.85)	1.06 (0.85–1.31)	1.23 (0.98–1.54)
21–25	1.00	1.00	1.00
26–30	0.69 (0.62–0.77)	0.89 (0.68–1.18)	0.98 (0.83–1.16)
≥ 31	0.40 (0.33–0.50)	4.10 (1.55–10.8)	1.14 (0.72–1.80)
Type of union			
Married	1.00	1.00	1.00
Cohabiting	0.83 (0.74–0.93)	0.48 (0.16–1.45)	0.88 (0.61–1.28)
Education woman			
Low	1.00	1.00	1.00
Medium	1.12 (0.98–1.27)	1.00 (0.83–1.19)	1.02 (0.87–1.20)
High Nonacademic	1.36 (1.16–1.59)	1.01 (0.69–1.48)	1.04 (0.82–1.32)
High Academic	1.88 (1.51–2.33)	2.40 (1.12–5.15)	0.93 (0.61–1.44)
Employment woman			
Full-time	1.00	1.00	1.00
Part-time	1.04 (0.93–1.17)	1.01 (0.76–1.33)	0.95 (0.77–1.18)
Unemployed	1.12 (0.99–1.27)	0.93 (0.77–1.13)	1.27 (1.07–1.50)
Education partner			
Low	1.00	1.00	1.00
Medium	1.09 (0.97–1.22)	1.04 (0.88–1.23)	1.10 (0.95–1.29)
High Nonacademic	1.32 (1.13–1.53)	1.02 (0.67–1.56)	1.16 (0.91–1.48)
High Academic	1.72 (1.42–2.08)	0.57 (0.34–0.96)	1.24 (0.99–1.56)
Employment partner			
Full-time	1.00	1.00	1.00
Part-time	0.94 (0.72–1.22)	0.88 (0.63–1.24)	0.86 (0.68–1.09)
Unemployed	0.97 (0.80–1.18)	1.03 (0.85–1.24)	0.85 (0.72–1.01)
Constant	0.13	0.07	0.12

Source: Belgian Census (2001) and National Population Register (2006)
Notes: 95% confidence interval between brackets; TV = time-varying.

Table A–3 Exponentiated coefficients for predictors of mothers' transition to a higher order birth, by origin

	Southern European origin (N=4,993)	Turkish origin (N=1,217)	Moroccan origin (N=2,134)
	Model C1	Model C2	Model C3
Years since previous birth TV			
0	1.14 (0.82–1.58)	0.69 (0.37–1.28)	0.69 (0.49–0.97)
1	1.00	1.00	1.00
2	1.11 (0.86–1.44)	0.95 (0.63–1.43)	1.27 (1.00–1.61)
3–4	0.84 (0.66–1.05)	1.27 (0.90–1.80)	1.87 (1.52–2.30)
5+	0.36 (0.27–0.48)	1.05 (0.72–1.52)	1.40 (1.11–1.78)
Origin and generation of partner			
Native Belgian	1.00	1.00	1.00
1st generation	1.18 (0.87–1.60)	1.27 (0.47–3.39)	2.25 (1.53–3.29)
1.5 generation	0.88 (0.37–1.22)	1.13 (0.40–3.17)	1.78 (1.17–2.69)
2nd generation	0.82 (0.69–0.98)	1.16 (0.42–3.23)	2.10 (1.40–3.16)
Birth cohort			
1960–1970	1.00	1.00	1.00
1971–1981	2.25 (1.87–2.70)	1.72 (1.18–2.50)	1.66 (1.38–1.98)
Age at first birth			
≤ 20	1.50 (1.19–1.89)	1.19 (0.95–1.50)	1.05 (0.89–1.24)
21–25	1.00	1.00	1.00
26–30	0.76 (0.62–0.93)	0.69 (0.39–1.22)	1.01 (0.82–1.24)
≥ 31	0.67 (0.45–0.99)	—	1.06 (0.58–1.92)
Number of children in 2001			
2	1.00	1.00	1.00
3	0.82 (0.67–1.01)	0.52 (0.38–0.69)	0.67 (0.57–0.78)
≥ 4	0.76 (0.53–1.09)	0.49 (0.29–0.83)	0.56 (0.44–0.71)
Type of union			
Married	1.00	1.00	1.00
Cohabiting	0.85 (0.68–1.07)	1.22 (0.28–5.44)	0.99 (0.63–1.55)
Education woman			
Low	1.00	1.00	1.00
Medium	0.85 (0.71–1.03)	0.94 (0.75–1.18)	0.88 (0.76–1.01)
High Nonacademic	1.16 (0.90–1.50)	1.35 (0.76–2.39)	0.94 (0.72–1.21)
High Academic	1.67 (1.14–2.44)	0.71 (0.09–5.44)	1.41 (0.85–2.34)
Employment woman			
Full-time	1.00	1.00	1.00
Part-time	1.05 (0.86–1.29)	1.43 (0.98–2.10)	0.98 (0.76–1.25)
Unemployed	1.24 (1.02–1.52)	1.36 (1.00–1.84)	1.28 (1.06–1.55)
Education partner			
Low	1.00	1.00	1.00
Medium	1.00 (0.84–1.19)	0.76 (0.60–0.97)	1.01 (0.87–1.17)
High Nonacademic	0.86 (0.65–1.14)	0.76 (0.41–1.39)	0.77 (0.59–1.01)
High Academic	1.12 (0.81–1.55)	1.12 (0.62–2.01)	0.91 (0.70–1.19)
Employment partner			
Full-time	1.00	1.00	1.00
Part-time	1.27 (0.85–1.89)	0.89 (0.55–1.42)	0.65 (0.49–0.85)
Unemployed	1.56 (1.23–1.98)	1.23 (0.96–1.59)	0.85 (0.73–1.00)
Constant	0.04	0.04	0.05

Source: Belgian Census (2001) and National Population Register (2006)
Notes: 95% confidence interval between brackets; TV = time-varying